



Calhoun County

DEPARTMENT OF PUBLIC HEALTH

MAIN OFFICE
190 E. Michigan Ave.
Battle Creek, MI 49017
(616) 966-1210

COUNTY ANNEX
339 S. Grand St.
Marshall, MI 49068
(616) 781-0950

101 N. Albion
Albion, MI 49224
(517) 629-9434

January 22, 1992

W & W Engineering & Science
5555 Glenwood Hills Parkway, S.E.
P. O. Box 874
Grand Rapids, MI 49588-0874

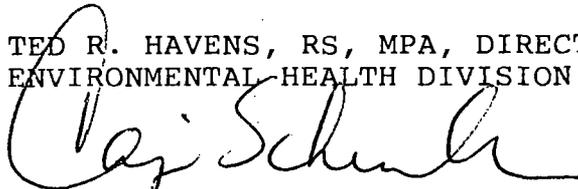
Dear Sirs:

Enclosed is the information that you flagged in our files. We did receive our original maps, thank you for returning them so quickly.

If you have any further questions, please contact this department at (616) 966-1241.

Sincerely,

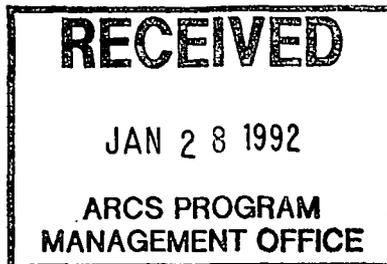
TED R. HAVENS, RS, MPA, DIRECTOR
ENVIRONMENTAL HEALTH DIVISION


Caprice Schenkuizen, R.S.

CS/csb

pc: Joseph Carver, Health Officer

encl



US EPA RECORDS CENTER REGION 5



470976

11/20/89
DRAFT

DRAFT VERSION

DRAFT VERSION

ALBION-SHERIDAN TOWNSHIP LANDFILL
SITE ASSESSMENT
ALBION, MICHIGAN

Prepared for:

U.S. Environmental Protection Agency

Region V

230 South Dearborn Street

Chicago, Illinois

CONTRACT NO. 68-01-7267

TAT-52-G2-XXXX

TDD NO. 5-8910-04

Prepared by:

WESTON - MAJOR PROGRAMS

Technical Assistance Team

Region V

November 20, 1989

1.0 SITE DESCRIPTION

The Albion-Sheridan Township Landfill (AST Landfill) is a closed and abandoned 30-acre landfill that is located at 13355 29-Mile Road, one mile east of Albion, Calhoun County, Michigan (Figure 1). Municipal refuse as well as industrial waste such as metallic sludges, paint residues, and spent solvents were accepted at the landfill. The landfill was owned and operated by Mr. Gordon Stavick of Cement City, Michigan. The AST Landfill is a National Priorities List site.

The topography of the site varies from level to rolling terrain with an approximate fifteen foot relief change over the entire property. The landfill surface is covered with a sandy soil and supports a vegetative cover of grasses and scattered trees.

Residential dwellings are located adjacent to the northeastern, northwestern, and southwestern borders of the site. The Kalamazoo River is located approximately 1,200 feet south of the landfill. The Brooks Foundry, a Superfund site currently undergoing a removal action, is located approximately 0.75 miles northwest of the landfill site.

According to the Field Investigation Team (FIT) report dated March 19, 1986, an estimated 13,500 persons obtain their drinking water

DRAFT

from public and private wells within a three mile radius of the AST Landfill. According to a publication by the Michigan Department of Natural Resources (MDNR) - Water Management Division, Municipal Water Withdrawals in Michigan, wells in the vicinity of the AST Landfill draw groundwater from two distinct water-bearing units. The uppermost unit consists of unconsolidated glacial deposits which range in thickness from 41-90 feet. Underlying the glacial deposits is the Marshall Sandstone Formation. The two aquifers are considered to be hydraulically connected.

2. SITE BACKGROUND

3.1 Marshall Pal Highway, Inc. Ownership

The AST Landfill was active from 1966 until its closure in 1981. The owner and operator of the landfill, Gordon Stavick, has been deceased since July 1985. Mr. Stavick is survived by his wife, Margaret Stavick of Conant City, Michigan. According to Mrs. Stavick's attorney, Charles McClafferty of Jackson, Michigan, the Stavicks have not paid any property taxes on the landfill site since 1980. Therefore, current ownership of the property is uncertain.

Analysis of samples collected by the MDNR in 1980 indicated that metallic sludge accepted by the landfill contained cyanide (2,100 mg/kg) and heavy metals (chromium - 250,000 mg/kg, zinc - 150,000 mg/kg, nickel - 1,000 mg/kg, and lead - 280 mg/kg). According to a FIT site inspection report dated March 19, 1986, the landfill accepted approximately 1,975 cubic yards of metallic sludge and

35,000 drums of paint wastes and spent solvents during its operation. Subsequent to the FIC site inspection and report in 1985, the AST Landfill site was placed on the National Priorities List.

2.2 Groundwater Monitoring Activities

During 1988 and 1989, the Calhoun County Health Department, in conjunction with the Michigan Department of Public Health, sampled twenty-~~three~~^{one} ²¹ private wells in the vicinity of the AST Landfill (Figure 2). This well sampling and analysis effort was part of a groundwater contamination investigation of the Brooks Foundry and McGraw-Edison/Cooper Industries sites to the northwest of the landfill site.

All well samples were analyzed for the presence of any of thirty-eight different volatile organic compounds (VOCs). Sample analysis indicated VOC contamination at only three locations: 6 Orchard Knoll (samples collected on 05/03/89 and 06/26/89), 289 Martin Drive (sample collected on 09/12/89), and the Brooks Foundry at 1712 E. Michigan Ave. (sample collected on 06/26/88). The contaminants detected in the first well sample collected at 6 Orchard Knoll were 1,1-dichloroethane, fluorotrichloromethane, and 1,1,1-trichloroethane. However, when the well was resampled on 06/26/89, only 1,1,1-trichloroethane was detected. Fluorotrichloromethane and 1,1,1-trichloroethane were detected in the well sample collected at the Brooks Foundry. Subsequent well

sampling at the Brooks Foundry (07/20/88 and 04/26/89) resulted in non detectable levels of VOC's. The Brooks Foundry ceased all operations during March 1989. The well at 289 Martin Drive was sampled once and only toluene was detected. Table 1 presents well sampling locations, dates, and contaminant concentrations.

Well water sampling and analysis has also occurred for the two wells used by the Amberton Village Subdivision Water System. These two wells, which are owned and operated by Parma Township, Jackson County, Michigan, are located approximately 1,000 feet east of the AST Landfill. Samples from these two wells have been collected annually for the past two years; no detectable levels of VOC or metal contamination have been observed in either of the two wells. Three of Albion's seven municipal wells are located in the Clark Street Well Field - approximately one mile northwest of the AST Landfill. Low levels of trichloroethylene (TCE) have been detected in two of the Clark Street wells in the past; however, TCE has not been detected in these wells since 1984. According to Terri Zick of the Calhoun County Health Department, the TCE contamination is believed to be associated with operations at the McGraw-Edison/Cooper Industries site which is adjacent to the well field. Benzene and methyl-tert-butyl ether contamination was detected in the Brownswood wells in 1988. However, this contamination is believed to be associated with three leaking underground storage tanks that were located near the wells. No contamination at the Brownswood wells has been detected for the past nine months, since

DRAFT

TABLE 2.

WELL SAMPLING RESULTS: 1989-1989
 MICHIGAN DEPARTMENT OF PUBLIC HEALTH
 ALBION-SHERIDAN TOWNSHIP LANDFILL
 ALBION, MICHIGAN

WELL LOCATION	DATE SAMPLED	VOC's ¹ DETECTED	CONTAMINANT CONCENTRATION
831 Brooks Road	09-12-89	Not Detected	
29571 Division Dr.	05-03-89	Not Detected	
29777 Division Dr.	05-03-89	Not Detected	
1712 E. Michigan Ave.	06-26-88	Fluorotrichloromethane	2 mg/l
		1,1,1-Trichloroethane	1 mg/l
	07-20-88	Not Detected	
1771 E. Michigan Ave.	04-28-89	Not Detected	
	09-12-89	Not Detected	
1761 E. Michigan Ave.	09-12-89	Not Detected	
1803 E. Michigan Ave.	09-12-89	Not Detected	
1829 E. Michigan Ave.	09-12-89	Not Detected	
1849 E. Michigan Ave.	09-12-89	Not Detected	
1940 E. Michigan Ave.	09-12-89	Not Detected	
289 Martin Dr.	09-12-89	Toluene	1 mg/l
295 Martin Dr.	09-12-89	Not Detected	
301 Martin Dr.	09-12-89	Not Detected	
307 Martin Dr.	09-12-89	Not Detected	
313 Martin Dr.	09-12-89	Not Detected	
146 Newburg	05-03-89	Not Detected	
6 Orchard Knoll	05-03-89	Fluorotrichloromethane	40 mg/l
		1,1-Dichloroethane	2 mg/l
		1,1,1-Trichloroethane	14 mg/l
	06-26-89	1,1,1-Trichloroethane	15 mg/l
13 Orchard Knoll	06-28-89	Not Detected	
15 Orchard Knoll	09-12-89	Not Detected	
29 Orchard Knoll	09-12-89	Not Detected	
63 Orchard Knoll	09-18-89	Not Detected	

¹ Volatile Organic Compounds

Source: Michigan Department of Public Health, November 6, 1989.

the City of Albion placed the wells in a secondary pumping position. Due to these previous contamination problems, all City of Albion municipal wells are monitored on a monthly basis for the presence of VOCs.

Three monitoring wells exist on the AST Landfill site (Figure XX). According to available records, the wells were installed in approximately 1980. No records were available concerning VOC analysis of samples taken from these wells. However, site well sample collection and analysis is planned by Calhoun County Health Department and the MDNR personnel.

2.3 Previous TAT Investigation

On July 19, 1989, the U.S. EPA requested the TAT to review the AST Landfill situation for a possible removal action. Following a review of the available site information and interviews with State and local officials, the TAT was requested by the U.S. EPA to conduct a site investigation.

During the August 15, 1989, site investigation by the TAT, numerous drums and containers of what appeared to be grease and paint waste were observed on the landfill surface. The TAT also observed two partially buried fuel tanks, one empty above-ground oil storage tank, and several half-buried drums on the landfill surface. The TAT collected samples of suspected hazardous waste from two different 55-gallon drums and from an area on the ground surface

adjacent to the drums. Analysis of the three samples indicated that the material did not exhibit any characteristics of hazardous waste per 40 CFR Parts 261.20-261.24. On October 5, 1989, the U.S. EPA requested TAT to return to the AST Landfill site to collect and analyze samples from drums not previously sampled on August 15, 1989.

3.0 SITE ASSESSMENT

On October 12, 1989, TAT members Jerry Boeckman, Kerry Hanlon, and Dan Weed traveled to the AST Landfill site. The TAT was met at the site by Brendan Boyle - Field Investigator for the Michigan Department of Public Health and Terri Zick - Sanitarian for the Calhoun County Health Department.

Initially, the TAT conducted a site walk-over with Mr. Boyle and Ms. Zick. A locked gate on the southeastern corner of site prevented vehicle access to the road which ran south to north through the site. However, vehicle access to the site from the northern border was unrestricted. Other than the locked gate, there were no other security fences or warning signs on the site perimeter. A row of large trees lined the eastern and western edges of the site. Although no hunters were seen on the site, spent shotgun shells were observed by the TAT along the road which ran through the site.

A For-Sale sign was posted on the site near the southern entrance (Division Dr.) to the landfill. According to Betty Michaleki of

the MDNR, the phone number on the sign (517 787-0477) will connect the caller to Jerry Richardson of Jackson, Michigan. What portion, if any, of the landfill is for sale is unknown.

The northeastern portion of the landfill contained several large piles of demolition debris (brick, metal, and wood) and a large borrow pit. Except for some recently cut brush deposited near the borrow pit, there was no evidence of any recent dumping in this general area. During the site walk-over, the TAT spoke to a gentleman who was walking near the demolition piles. This gentleman, who declined to provide his name, stated that Joseph Fitzpatrick of Albion, Michigan owned the land on which the demolition debris stood. According to information provided by the Calhoun County Health Department, the land on which the debris was located was once known as Scott's Transfer Station.

The nearest residence (29951 Division Dr.) to the site was a single home located approximately 200 feet west of the southwest corner of the property. Approximately 1,000 feet east of the site was located the Amberton Village Subdivision. A Fraternal Order of Eagles club, a self-storage building, and a single home were located along Michigan Avenue to the north of the landfill. The Kalamazoo River was located approximately 1,200 feet south of the site.

DRAFT

Following the site walk-over, the TAT conducted an inventory of the location and condition of all containers (drums, buckets, and tanks) that were visible on the landfill surface. In addition, the TAT estimated the volume of material contained in each container. During the inventory, the TAT observed the presence of three (3) storage tanks, twenty-seven (27) 55-gallon metal drums, and five (5) small metal containers (Figure XX).

Two of the three storage tanks that were observed were partially buried and connected to inoperable gasoline pumps; both storage tanks had an estimated storage capacity of 500 gallons. The first tank was empty; the second tank was locked and the type and quantity of its contents, if any, could not be determined. The third storage tank was lying horizontal on the landfill surface. The tank was empty and had an estimated storage capacity of 3,000 gallons. Of the twenty-seven 55-gallon drums observed, eleven were empty and sixteen were full or partially full of material. The exterior surface on the majority of the drums was rusted. All but one of the five small metal containers held some amount of material; unused industrial grease was held in two of the containers. Concurrent with the container inventory, the TAT conducted air monitoring with an HNu photoionization detector and an 11.7 eV probe. Only two readings above background level were observed: inside drum B-4 (25 units) and at the opening of one of the two partially buried tanks (17 units).

DRAFT

On October 13, 1989, the TAT returned to the site to collect samples of material from 55-gallon drums suspected to contain hazardous waste. A total of four (4) drums were sampled. A drum thief or wooden spoon was used to collect a sixteen ounce grab sample from each of the four drums; the sampling device was discarded following sample collection at each drum. Samples were collected from drums labeled B-4 (brown-colored liquid), B-9 (dark-colored sludge), B-16 (blue paint-like sludge), and B-17 (yellow paint-like sludge).

The four samples collected at the AST Landfill were shipped on October 17, 1989 to Grace Analytical Laboratory in Hazelley, Illinois. All samples were analyzed for characteristics of hazardous waste: ignitability, corrosivity, and reactivity. In addition, a solvent scan was performed on the sample collected from drum B-4. The HNu photoionization detector had previously registered 25 units when the 11.7 eV probe was inserted through the bung opening on this drum.

4.0 ANALYTICAL RESULTS

The samples collected from drums B-9, B-16, and B-17 were each determined to have flash points below 140°F, thereby exhibiting the characteristic of ignitability (40 CFR Part 261.21). The EPA Hazardous Waste Number of D001 can be assigned to the material in these three drums. The sample collected from drum B-4 was determined to have a flash point above 140°F and therefore did not exhibit the characteristic of ignitability. None of the four

samples exhibited characteristic of corrosivity or reactivity. Table 2 presents the results of the sample analysis for characteristics of hazardous waste.

A solvent scan was performed on the sample of material collected from drum E-4. A total of five volatile organic compounds (VOCs) were detected in the sample: ethylbenzene, tetrachloroethylene, toluene, 1,1,1-trichloroethane, and total xylene. In addition, twenty-three additional VOCs were tentatively identified during the sample analysis. The presence of these constituents identifies this material as an EPA F-listed (F001 - F005) Hazardous Waste. The results of the solvent scan analysis are presented in Table 3.

5.0 THREATS TO HUMAN HEALTH AND THE ENVIRONMENT

5.1 Threats As Related To The National Contingency Plan

Based on observations and analysis of samples collected by the TAT, two of the removal justification factors outlined in Section 300.65 (b) (2) of the National Contingency Plan are satisfied by conditions at the AST Landfill site. The actual or potential threats to human health and the environment present at the site are as follows:

- o Actual or potential exposure to hazardous substances or pollutants or contaminants by nearby populations, animals, or food chain; and,

TABLE 2

ANALYTICAL RESULTS OF TAT SAMPLING¹
 CHARACTERIZATION OF HAZARDOUS WASTE
 ALBION-SHERIDAN TOWNSHIP LANDFILL
 ALBION, MICHIGAN

October 13, 1989

ANALYTICAL PARAMETER	DRUM NUMBER / SAMPLE I.D. NUMBER			
	B-4/S-61	B-9/S-62	B-16/S-63	B-17/S-64
pH	8.5	8.5	6.8	6.0
Flash Point	>212°F	<73°F	<73°F	<73°F
Cyanide ² Total	<10 mg/kg	<10 mg/kg	<10 mg/kg	<10 mg/kg
Amenable	<10 mg/kg	<10 mg/kg	<10 mg/kg	<10 mg/kg
Sulfide ² Total	<10 mg/kg	<10 mg/kg	<10 mg/kg	<10 mg/kg
Reactive	<10 mg/kg	<10 mg/kg	<10 mg/kg	<10 mg/kg

¹ Analysis conducted by Grace Analytical Laboratory, Berkeley, Illinois.

² Due to emulsion, samples were diluted ten times for cyanide and sulfide analysis.

DRAFT

TABLE 2 (continued)

ANALYTICAL RESULTS OF TBT SAMPLING¹
FOOT-FOOS SOLVENT WASTES ANALYSIS
ALBION-SHERIDAN TOWNSHIP LANDFILL
ALBION, MICHIGAN

October 13, 1989

DROM NUMBER / SAMPLE I.D. NUMBER

B-4/S-61

TENTATIVELY IDENTIFIED COMPOUNDS	ESTIMATED CONCENTRATION (ug/kg)
Hexane, 3-ethyl-4-methyl-	1980
Pentadecane, octahydro-2-methyl-	1160
Cyclohexane, propyl-	1880
Heptane, 4-methyl-	1300
1,2-Dibenzene, 3,6-dimethyl-	1960
Benzene, 1-ethyl-2-methyl-	2540
Benzene, 1,2,3-trimethyl-	3920
Octane, 2,7-dimethyl-	7780
Benzene, (1-methyl-ethyl)-	1350
Benzene, 1-ethyl-3-methyl-	5870
Nonane, 2,6-dimethyl-	2110
Benzene, 1-ethyl-4-methyl-	2260
Nonane, 3,7-dimethyl-	1000
Naphthalene, decahydro-, trans-	2950
Benzene, 1-methyl-3-propyl-	1270
Benzene, 1-ethyl-2,3-dimethyl-	1610
Cyclohexane, 1,2-diethyl-1-methyl-	2220
Undecane	6040
Benzene, (1,1-dimethylpropyl)-	1250
Cyclohexane, pentyl-	1500
Benzene, 1,2,3,4-tetramethyl-	1030
Benzene, methyl-(1-methyl-ethyl)-	1130
Dodecane	1120

¹ Analysis conducted by Grace Analytical Laboratory, Berkeley, Illinois.

DRAFT

o Hazardous substances or pollutants or contaminants in drums, barrels, tanks, or other bulk storage containers, that pose a threat of release.

5.2 Threat of Exposure

Access to the AST Landfill is essentially unrestricted. Exposure to hazardous wastes is possible by persons and/or animals which enter the site and come into contact with the waste containing drums. At the time of the TAT investigation, there were no signs to warn of the presence of a potential or actual threat of exposure at the landfill.

5.3 Threat of Release

The drums which hold the hazardous waste on site are not secured from access by the public. Therefore, these drums could be opened or otherwise breached by vandals, hucksters, or other persons who unknowingly come into contact with the drums. In addition, many of drums on site are severely rusted and of questionable integrity. Either of these two factors could cause a release of waste material on site and result in soil and/or ground water contamination.

Albion Sheridan LANDFILL
CHEMICAL ANALYSIS OF WATER

Bureau of Laboratory and Epidemiological Services
 Michigan Department of Public Health
 3500 North Logan, P.O. Box 30035
 Lansing, MI 48909
 Telephone (517) 335-8184

Abbreviations: GT = Greater than given value
 MCL = State regulated maximum contaminant limit

LAB NO.: 8910-04808 Page: 1
 PROGRAM CODE: 22

REPORT TO:

Calhoun County Health Dept.
 190 E. Michigan Ave.
 Battle Creek, MI 49017

Date received: 10/30/89
 Date reported: 11/13/89

Examiners in Charge:
 T.J. Williams, Sect Chief
 F.M. Saad, Assist Sect Chief

Albion/Sher. Landfill

F.M. Saad

SAMPLE SOURCE INFORMATION:

System Owner: L PRADER
 Street Address:
 City or Twp: ALBION
 County: CALHO

WSSN:
 Location/Source:
 Collected by: ZICK
 Date Collected: 10/24/89

Test Name	Test Result	Standard Health MCL	Detection Test Limit
BROMOFORM	Not Detected	0.10mg/l	0.001mg/l
BROMOMETHANE	Not Detected		0.020mg/l
CARBON TETRACHLORIDE	Not Detected		0.001mg/l
CHLORO BENZENE	Not Detected		0.001mg/l
CHLORODIBROMOMETHANE	Not Detected	0.10mg/l	0.001mg/l
CHLOROETHANE	Not Detected		0.020mg/l
CHLOROFORM	Not Detected	0.10mg/l	0.001mg/l
CHLOROMETHANE	Not Detected		0.050mg/l
DICHLOROBROMOMETHANE	Not Detected	0.10mg/l	0.001mg/l
DICHLOROETHANE, 1,2-	Not Detected		0.001mg/l
DICHLOROETHANE, 1,1-	Not Detected		0.001mg/l
DICHLOROETHYLENE, TRANS-1,2,	Not Detected		0.001mg/l
DICHLOROETHYLENE, CIS-1,2,	Not Detected		0.001mg/l
DICHLOROPROPANE, 1,2-	Not Detected		0.001mg/l
DICHLOROPROPENE, trans-1,3-	Not Detected		0.001mg/l
DICHLOROPROPENE, cis-1,3-	Not Detected		0.001mg/l
ETHYLENE DIBROMIDE	Not Detected		0.001mg/l
FLUOROTRICHLOROMETHANE	Not Detected		0.010mg/l
HEXACHLOROETHANE	Not Detected		0.001mg/l
METHYLENE CHLORIDE	Not Detected		0.001mg/l
TETRACHLOROETHANE, 1,1,2,2-	Not Detected		0.001mg/l
TETRACHLOROETHYLENE	Not Detected		0.001mg/l
TOTAL TRIHALOMETHANES	Not Detected	0.10mg/l	0.001mg/l
TRICHLOROETHANE, 1,1,2-	Not Detected		0.001mg/l
TRICHLOROETHANE, 1,1,1-	Not Detected		0.001mg/l
TRICHLOROETHYLENE	Not Detected		0.001mg/l
VINYLDENE CHLORIDE	Not Detected		0.001mg/l
BENZENE	Not Detected		0.001mg/l
DICHLORO BENZENE, 1,4-	Not Detected		0.001mg/l
DICHLORO BENZENE, 1,3-	Not Detected		0.001mg/l
DICHLORO BENZENE, 1,2-	Not Detected		0.001mg/l

(CONTINUED)

NOV 22 1989

CHEMICAL ANALYSIS OF WATER

Bureau of Laboratory and Epidemiological Services
Michigan Department of Public Health
3500 North Logan, P.O. Box 30035
Lansing, MI 48909
Telephone (517) 335-8184

Abbreviations: GT = Greater than given value
MCL = State regulated maximum contaminant limit

LAB NO.: 8910-04808 Page: 2
PROGRAM CODE: 22

REPORT TO:

Calhoun County Health Dept.
190 E. Michigan Ave.
Battle Creek, MI 49017

Date received: 10/30/89
Date reported: 11/13/89

Examiners in Charge:
T.J. Williams, Sect Chief
F.M. Saad, Assist Sect Chief

F.M. Saad

SAMPLE SOURCE INFORMATION:

System Owner: L PRADER
Street Address:
City or Twp: ALBION
County: CALHO

WSSN:
Location/Source:
Collected by: ZICK
Date Collected: 10/24/89

Test Name	Test Result	Standard Health MCL	Detection Test Limit
ETHYLBENZENE	Not Detected		0.001mg/l
METHYL ETHYL KETONE	Not Detected		0.020mg/l
METHYL ISOBUTYL KETONE	Not Detected		0.020mg/l
STYRENE	Not Detected		0.001mg/l
TOLUENE	Not Detected		0.001mg/l
XYLENE	Not Detected		0.001mg/l

CHEMICAL ANALYSIS OF WATER

Bureau of Laboratory and Epidemiological Services
Michigan Department of Public Health
3500 North Logan, P.O. Box 30035
Lansing, MI 48909
Telephone (517) 335-8184

Abbreviations: GT = Greater than given value
MCL = State regulated maximum contaminant limit

LAB NO.: 8910-04808 Page: 1
PROGRAM CODE: 22

REPORT TO:

Calhoun County Health Dept.
190 E. Michigan Ave.
Battle Creek, MI 49017

Date received: 10/30/89
Date reported: 11/13/89

Examiners in Charge:
T.J. Williams, Sect Chief
F.M. Saad, Assist Sect Chief

F.M. Saad

SAMPLE SOURCE INFORMATION:

System Owner: L PRADER
Street Address:
City or Twp: ALBION
County: CALHO

WSSN:
Location/Source:
Collected by: ZICK
Date Collected: 10/24/89

Test Name	Test Result	Standard Health MCL	Detection Test Limit
BROMOFORM	Not Detected	0.10mg/l	0.001mg/l
BROMOMETHANE	Not Detected		0.020mg/l
CARBON TETRACHLORIDE	Not Detected		0.001mg/l
CHLORO BENZENE	Not Detected		0.001mg/l
CHLORODIBROMOMETHANE	Not Detected	0.10mg/l	0.001mg/l
CHLOROETHANE	Not Detected		0.020mg/l
CHLOROFORM	Not Detected	0.10mg/l	0.001mg/l
CHLOROMETHANE	Not Detected		0.050mg/l
DICHLOROBROMOMETHANE	Not Detected	0.10mg/l	0.001mg/l
DICHLOROETHANE, 1,2-	Not Detected		0.001mg/l
DICHLOROETHANE, 1,1-	Not Detected		0.001mg/l
DICHLOROETHYLENE, TRANS-1,2,	Not Detected		0.001mg/l
DICHLOROETHYLENE, CIS-1,2,	Not Detected		0.001mg/l
DICHLOROPROPANE, 1,2-	Not Detected		0.001mg/l
DICHLOROPROPENE, trans-1,3-	Not Detected		0.001mg/l
DICHLOROPROPENE, cis-1,3-	Not Detected		0.001mg/l
ETHYLENE DIBROMIDE	Not Detected		0.001mg/l
FLUOROTRICHLOROMETHANE	Not Detected		0.010mg/l
HEXACHLOROETHANE	Not Detected		0.001mg/l
METHYLENE CHLORIDE	Not Detected		0.001mg/l
TETRACHLOROETHANE, 1,1,2,2-	Not Detected		0.001mg/l
TETRACHLOROETHYLENE	Not Detected		0.001mg/l
TOTAL TRIHALOMETHANES	Not Detected	0.10mg/l	0.001mg/l
TRICHLOROETHANE, 1,1,2-	Not Detected		0.001mg/l
TRICHLOROETHANE, 1,1,1-	Not Detected		0.001mg/l
TRICHLOROETHYLENE	Not Detected		0.001mg/l
VINYLDENE CHLORIDE	Not Detected		0.001mg/l
BENZENE	Not Detected		0.001mg/l
DICHLORO BENZENE, 1,4-	Not Detected		0.001mg/l
DICHLORO BENZENE, 1,3-	Not Detected		0.001mg/l
DICHLORO BENZENE, 1,2-	Not Detected		0.001mg/l

(CONTINUED)

CHEMICAL ANALYSIS OF WATER

Bureau of Laboratory and Epidemiological Services
Michigan Department of Public Health
3500 North Logan, P.O. Box 30035
Lansing, MI 48909
Telephone (517) 335-8184

Abbreviations: GT = Greater than given value
MCL = State regulated maximum contaminant limit

LAB NO.: 8910-04808 Page: 2
PROGRAM CODE: 22

REPORT TO:

Calhoun County Health Dept.
190 E. Michigan Ave.
Battle Creek, MI 49017

Date received: 10/30/89
Date reported: 11/13/89

Examiners in Charge:
T.J. Williams, Sect Chief
F.M. Saad, Assist Sect Chief

F.M. Saad

SAMPLE SOURCE INFORMATION:

System Owner: L PRADER
Street Address:
City or Twp: ALBION
County: CALHO

WSSN:
Location/Source:
Collected by: ZICK
Date Collected: 10/24/89

Test Name	Test Result	Standard Health MCL	Detection Test Limit
ETHYLBENZENE	Not Detected		0.001mg/l
METHYL ETHYL KETONE	Not Detected		0.020mg/l
METHYL ISOBUTYL KETONE	Not Detected		0.020mg/l
STYRENE	Not Detected		0.001mg/l
TOLUENE	Not Detected		0.001mg/l
XYLENE	Not Detected		0.001mg/l

MICHIGAN DEPARTMENT OF NATURAL RESOURCES
Environmental Protection Bureau
Resource Recovery Division

APPLICATION FOR
SOLID WASTE DISPOSAL AREA LICENSE

FOR DNR USE ONLY	<input type="checkbox"/> NEW <input checked="" type="checkbox"/> RENEWAL
FACILITY NO.	LICENSE NO.
COUNTY	Date Received by Resource Recovery Division

Application is hereby made to the Director, Michigan Department of Natural Resources, for a license to operate a solid waste disposal area under the provisions of Act 641, P.A. of 1978.

COMPLETE OR CORRECT ALL SECTIONS

DISPOSAL AREA NAME AND LOCATION			
NAME OF FACILITY Sheridan-Albion Landfill		ATTN. Gordon D. Stevick	
STREET E. Erie Rd.		CITY Albion	STATE Michigan
TOWNSHIP Sheridan	COUNTY Calhoun	LOCAL HEALTH DEPT. Calhoun County	ZIP 49224
LOCATION			
APPLICANT			
NAME OF OPERATING ORGANIZATION Gordon D. Stevick		ATTN. Gordon D. Stevick	
STREET Lot #1 Crystal Lake		CITY Cement City	STATE Michigan
TELEPHONE 517-688-4409		FEDERAL ID NO. None	
PROPERTY OWNER			
NAME OF PROPERTY OWNER Gordon D. Stevick		ATTN. Gordon D. Stevick	
STREET Lot #1 Crystal Lake		CITY Cement City	STATE Michigan
		ZIP 49233	TELEPHONE 517-688-4409
TYPE OF DISPOSAL OPERATION (IF MORE THAN ONE AREA INVOLVED FILE SEPARATE APPLICATION FOR EACH)			
<input checked="" type="checkbox"/> SANITARY LANDFILL TYPE: I _____ II _____ III _____ Total 15 acres <input type="checkbox"/> INCINERATION (CAPACITY) _____ North 10 acres of Lot 28 Section 36 <input type="checkbox"/> REFUSE TRANSFER FACILITY _____ South 5 acres of Lot 27 Section 36 <input type="checkbox"/> PROCESSING PLANT _____ <input type="checkbox"/> OTHER (SPECIFY) _____			
CONSTRUCTION COST (EXCEPT LANDFILL) Does not apply		NO. ACRES APPLIED FOR: 5 acres	
FEE, BOND AND CONSTRUCTION CERTIFICATION			
<input checked="" type="checkbox"/> The required license fee of \$100 is attached. LETTER 422141 <input checked="" type="checkbox"/> Sanitary landfill bond of \$4000/acre (minimum \$20000) and power of attorney are attached. Bond Value \$ _____ <input type="checkbox"/> Facility Bond (other than Landfills) of 1/4 of 1% of construction cost (minimum \$4000) and power of attorney are attached. <input type="checkbox"/> Certification of Construction by registered professional engineer is attached. <input type="checkbox"/> Restrictive covenant is attached.			

I hereby certify that this information is correct and complete.

Gordon D. Stevick
SIGNATURE TITLE **Land Owner**

Make checks payable and submit to: Acknowledgement of receipt of \$100.00 license fee received by me on
Date 12-20- 19 79
Signature [Signature]
Title Sanitarian
CHECK # 3257

FOR CASHIERS USE ONLY

DO NOT SEPARATE—SEND ALL COPIES

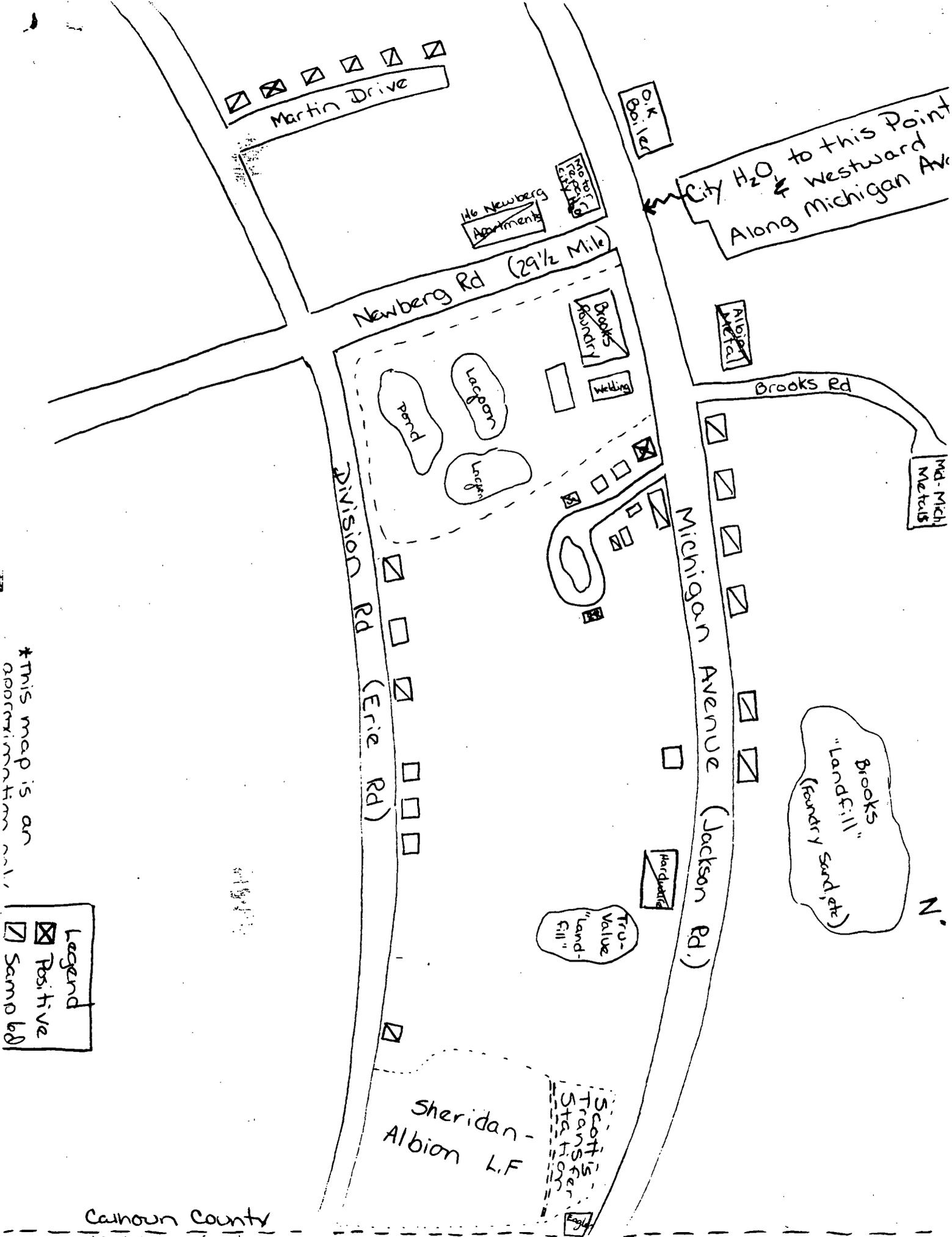
MS501 Rev. 7/78

ORGANIZATION NAME AND ADDRESS

FILL IN SPACE ABOVE

STATE OF MICHIGAN
DEPARTMENT OF NATURAL RESOURCES
RESOURCE RECOVERY DIVISION
APPLICATION FOR SOLID WASTE DISPOSAL AREA LICENSE

MS501
Rev. 7/78



*This map is an approximation only.

Legend
 X Positive
 □ Sampled

Carhoun County

REC#	Rec#	Date	Address	Contact	Activity	Fac.#	Mileage
1	SWCM	3/15/90		G. Zollner	Meeting	000455	22
2	Illegal Duap	Spe...		N/A	Inspection	000527	6
3	Toeller Bldg.	Batt...		Terri Zick	Lyon Lk. sds	000525	0
4	Illegal Duap	Athens		N/A	Inspection	000529	31
5	SWCM	3/15/90		G. Zollner	Meeting	000455	22
6	*****						
7	Illegal Duap	Battle Creek	2/5/90	N/A	inspection	000525	12
8	Illegal Duap	Athens Twp.	2/5/90	N/A	"	000529	31
9	C&C Landfill	14450 P.Dr.N	2/8/90	Bill Berry	Inspection	000602	29
10	SWCM	315 Green St.	2/26/90	G.Zollner	Meeting	000455	22
11	Illegal Duap	Burlington Twp.	2/28/90	N/A	Inspection	000530	37
12	*****						
13	Recycling Conf.	Lansing	3/3/90	Recycling Coal.	Meeting	000452	95

LAB # 5668 PROJ CODE 6B COST CENTER PR 7 COLLECTED BY TRANSFERRED TO Superintendent Analyzed RECEIVED AT LAB EXAMINER

LOCATION SAMPLED SAMPLE REMARKS SEND RESULTS TO (NAME & SECTION)

FIELD ID.	DESCRIPTION OF SAMPLING SITE OR SAMPLE	REF NO.	STORE NUMBER	START DATE YMMDD	TIME MIL TTTT	DEPTH FEET	LAB NO.	CL2 T. RES MG/L	OXYGEN DIS. MG/L	C.O.D. HIGH MG/L	T.O.C. AMPUL MG/L	PHENOL T. REC UG/L	CN TOTAL MG/L	S= TOTAL MG/L S	BOD-5 TOTAL MG/L
		P					200008	50060	00300	00340	00680	32730	00720	00745	00310
		I01		9-22-81	1215		11889			6	2.9				
		I02		9-22-81	1440		11890			32	6.1				
		I03		9-22-81	1040		11891			22	4.5				
	Blank	I04		9-22-81			11892			43	0.2				
		I05													
		I06													
		I07													
		I08													
		I09													
		I10													

REF NO.	NO3 N02 TOTAL MG/L N	NO3 TOTAL MG/L N	NO2 TOTAL MG/L N	NH3 TOTAL MG/L N	ORG N TOTAL MG/L N	KJEL N TOTAL MG/L N	ORTH. P TOTAL MG/L P	PHOS. TOTAL MG/L P	MBAS MG/L	CR6+ TOTAL UG/L	F TOTAL MG/L	CL TOTAL MG/L	SI REACT. MG/L	SO4= TOTAL MG/L	ALK. TOTAL MG/L	BICARB HC03- MG/L	CARB. CO3= MG/L
01	0.63	0.62	0.51	0.27	C							4.0		37		C 219	C
02	3.6	3.4	3.03	1.0	C							270		41		C 236	C
03	0.04	0.04	0.01	0.24	C							190		1.9		C 290	C
04		C			C											C	C
05		C			C											C	C
06		C			C											C	C
07		C			C											C	C
08		C			C											C	C
09		C			C											C	C
10		C			C											C	C

LAB LOG# 5668 PROJ CODE 6B COST CENTER _____ PR 7 COLLECTED BY [Signature] TRANSFERRED TO _____ RECEIVED AT LAB [Signature] EXAMINER Nordlund
 LOCATION SAMPLED Sheldon White Sandfill SAMPLE REMARKS 11889 SEND RESULTS TO (NAME & SECTION) _____

< "DO NOT PUNCH" >		REF NO.	STORE NUMBER	START DATE	TIME	DEP-TH	LAB NO.	CA TOTAL	MG TOTAL	NA TOTAL	K TOTAL	CD TOTAL	CR TOTAL	CU TOTAL	NI TOTAL
FIELD ID.	DESCRIPTION OF SAMPLING SITE OR SAMPLE	P		YYMMDD	TTTT	FEET	00008	MG/L	MG/L	MG/L	MG/L	UG/L	UG/L	UG/L	UG/L
001	220' west corner well	101		800721	1015		11889	72	19	4		K20	K50	K20	K50
002	220' to the east side well	102		800721	1015		11890	170	44	93		↓	↓	30	↓
003	220' to the east side well	103		800721	1015		11891	93	31	45		↓	↓	K20	↓
Blank	Blank	104		800721			1892	K1	K1	K1				↓	↓
		105													
		106													
		107													
		108													
		109													
		110													

REF NO.	PB TOTAL UG/L 01051	ZN TOTAL UG/L 01092	FE TOTAL UG/L 01045												
01	70	K50	14,000												
02	K50	23,000	49,000												
03		110	2,600												
04		K50	K100												
05															
06															
07															
08															
09															
10															

Shared with E4

MICHIGAN DEPT. OF NATURAL RESOURCES, ENVIRONMENTAL LABORATORY ANALYSIS -- PHYSICAL & BIOLOGICAL - WATER - GENERAL USAGE

LAB LOG# 5668 PROJ CODE 6B COST CENTER _____ PR 7 COLLECTED BY _____ TRANSFERRED TO _____ RECEIVED AT LAB [Signature] EXAMINER [Signature]

LOCATION SAMPLED [Signature] SAMPLE REMARKS [Signature] SEND RESULTS TO (NAME & SECTION) _____

"DO NOT PUNCH"		REF NO.	STORE NUMBER	START DATE	TIME	DEPTH	LAB NO.	TEMP. DEGREE	FECAL COLI	TOTAL COLI	PH STAND. UNITS	COND. 25 C US/CM	RES-NF SS-105 MG/L	RES-TF TDS180 MG/L
FIELD ID.	DESCRIPTION OF SAMPLING SITE OR SAMPLE	P		YYMMDD	TTTT	FEET		CENT.	MF.	MF.	00400	00095	00530	70300
101	North west corner well			80021	1015		11889				7.6	440		
102	middle East well			80021	1015		1890				7.2	1950		
103	South well			80021	1015		11891				7.7	1060		
104	South well													
105														
106														
107														
108														
109														
110														

REF NO.														
01														
02														
03														
04														
05														
06														
07														
08														
09														
10														

GROUND WATER CONTAMINATION INVESTIGATION File # 154-13-80

S.M.A. 2

MICHIGAN DEPT. OF NATURAL RESOURCES, ENVIRONMENTAL LABORATORY ANALYSIS -- INORGANICS - SEDIMENTS - DRY WT. BASIS

AUG 11 1980

LAB LOG# 56128 PROJ CODE 5D COST CENTER _____ PR 3 COLLECTED BY Tom Ramsey TRANSFERRED TO HEIT RECEIVED AT LAB _____ EXAMINER Abdellah
 LOCATION SAMPLED Albion Sheridan - 159-13-80 SAMPLE REMARKS METALIC SLUDGE SEND RESULTS TO (NAME & SECTION) Tom Ramsey 610 Terry Howard Ave 350 Ottawa St NE GRAND RAPIDS MI

FIELD ID.	DESCRIPTION OF SAMPLING SITE OR SAMPLE	REF NO.	STORE NUMBER	START DATE YMMDD	TIME MIL TTTT	S. T. OR B	NUM SAMPLES	END DATE YMMDD	TIME MIL TTTT	DEPTH FEET	LAB NO.	TOTAL SOLIDS PERCENT	VOLITL SOLIDS % T.S.	CD-SED DRY-WT MG/KG	CR-TOT DRYSED MG/KG	CU-SED DRY-WT MG/KG
		P									200008	70318	70322	01028	01029	01043
L.A.S.	Excavated Area North Boundary	C01		800716	1230		1				11574			10	250000	100
		C02														
		C03														
		C04														
		C05														
		C06														
		C07														
		C08														
		C09														
		C10														

REF NO.	NI-SED DRY-WT MG/KG	PB-SED DRY-WT MG/KG	ZN-SED DRY-WT MG/KG	FE-SED DRY-WT MG/KG	MN-SED DRY-WT MG/KG	HG-SED DRY-WT MG/KG	AS-SED DRY-WT MG/KG	SE-SED DRY-WT MG/KG	Remarks	Notes
01	1000	280	150000	45000		K1				
02										
03										
04										
05										
06										
07										
08										
09										
10										

LAB LOG# 56126 PROJ CODE 68 COST CENTER PR 3 COLLECTED BY HARTMAN, R. D. TRANSFERRED TO HEYT RECEIVED AT LAB EXAMINER T. HARTMAN R.R.D. DIST. 9 350 D. HOWA, G.P.

LOCATION SAMPLED Albion-Sheridan 159-13-80 SAMPLE REMARKS METALLIC SLUDGE SEND RESULTS TO (NAME & SECTION)

"DO NOT PUNCH"		REF NO.	STORE NUMBER	START DATE	TIME	DEPTH	LAB NO.	CL2 T. RES	OXYGEN DIS.	C.O.D. HIGH	T.O.C. AMPUL	PHENOL SED.	CN SED.	S= TOTAL	BOD-5 TOTAL
FIELD ID.	DESCRIPTION OF SAMPLING SITE OR SAMPLE	P		YYMMDD	MM:TT	FEET	2	MG/L	MG/L	MG/L	MG/L	MG/KG	MG/KG	MG/L S	MG/L
145	Excavated Area - Noena Boulder	I01		820716	12:30		11574					0.6	2100		
		I02													
		I03													
		I04													
		I05													
		I06													
		I07													
		I08													
		I09													
		I10													

REF NO.	NO3 TOTAL	NO3 TOTAL	NO2 TOTAL	NH3 TOTAL	ORG N TOTAL	KJEL N TOTAL	ORTH. P TOTAL	PHOS. TOTAL	MBAS	CR6+ TOTAL	F TOTAL	CL TOTAL	SI REACT.	SO4= TOTAL	ALK. TOTAL	BICARB HCO3-	CARB. CO3=
	MG/L N	MG/L N	MG/L P	MG/L P	MG/L	UG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L				
01	00630						70507	00665	38260	01032	00951	00940	00958	00945	00410	00440	00445
02		C			C											C	C
03		C			C											C	C
04		C			C											C	C
05		C			C											C	C
06		C			C											C	C
07		C			C											C	C
08		C			C											C	C
09		C			C											C	C
10		C			C											C	C

Groundwater Contamination IV E/15/159-13-80

MICHIGAN DEPT. OF NATURAL RESOURCES, ENVIRONMENTAL LABORATORY ANALYSIS -- ORGANICS - WATER - GENERAL USAGE

LAB LOG# 4808 PROJ CODE 68 COST CENTER _____ PR 4 COLLECTED BY J. Werth TRANSFERRED TO E. Brooks RECEIVED AT LAB AE EXAMINER J. Brown
 LOCATION SAMPLED Shredon Albion LA SAMPLE REMARKS _____ SEND RESULTS TO (NAME & SECTION) Reservoirs Section

FIELD ID.	"DO NOT PUNCH" DESCRIPTION OF SAMPLING SITE OR SAMPLE	REF NO.	STORE NUMBER	START DATE YYMMDD	TIME MIL TTTT	DEPTH TH FEET	LAB NO.	FE-OIL MG/L	MBAS MG/L	PCB			G.C. SCAN Volatiles
										A-1242 UG/L	A-1254 UG/L	A-1250 UG/L	
<u>AW-1</u>	<u>See notes</u>	<u>I01</u>		<u>800403</u>	<u>1410</u>		<u>6152</u>	<u>K1</u>					
<u>AW-2</u>	" "	<u>I02</u>		<u>800403</u>	<u>1515</u>		<u>6152</u>	<u>↓</u>					<u>U</u>
<u>AW-3</u>	" "	<u>I03</u>		<u>800403</u>	<u>1452</u>		<u>6151</u>	<u>↓</u>					<u>V</u>
		<u>I04</u>											
		<u>I05</u>											
		<u>I06</u>											
		<u>I07</u>											
		<u>I08</u>											
		<u>I09</u>											
		<u>I10</u>											

REF NO.													
01													
02													
03													
04													
05													
06													
07													
08													
09													
10													

LAB LRG# 4803 PROJ CODE 68 COST CENTER PR 4 COLLECTED BY J. Weather TRANSFERED TO E. Brown RECEIVED AT LAB AFJ EXAMINER Nordlund
 LOCATION SAMPLED Shinden - Alton Lt SAMPLE REMARKS SEND RESULTS TO (NAME & SECTION) Resource Recovery
 E. Brown

FIELD ID.	"DO NOT PUNCH" DESCRIPTION OF SAMPLING SITE OR SAMPLE	REF. NO.	STORE NUMBER	START DATE YYYMMDD	TIME MIL TTTT	DEPTH TH FEET	LAB NO.	PHENOL T. RECI UG/L	CN TOTAL MG/L	CU TOTAL UG/L	CR TOTAL UG/L	OR HEXVAL UG/L	CA TOTAL UG/L	FE TOTAL UG/L	NI TOTAL UG/L
0W1	see notes	101		800403	1410		6452	15	K.01	K20	K50		2000	58000	K50
0W2	see notes	102		800403	1515		6452	K10	↓	↓	J90		130	130,000	90
0W3	"	103		800403	1457		6454	↓	↓	↓	K50		90	4600	K50
		104													
		105													
		106													
		107													
		108													
		109													
		110													

REF. NO.	PR TOTAL UG/L	ZN TOTAL UG/L
01	70	1700
02	210	3900
03	K50	150
04		
05		
06		
07		
08		
09		
10		

NORTH CAROLINA DEPT. OF NATURAL RESOURCES, ENVIRONMENTAL LABORATORY ANALYSIS -- ENVIRONMENTAL QUALITY - WATER - GENERAL USAGE

LAB LOG# 4808 PROJ CODE 68 COST CENTER _____ PR 4 COLLECTED BY J. W. Wether TRANSFERRED TO E. Brown RECEIVED AT LAB HFJ EXAMINER E. Brown
 LOCATION SAMPLED Sherrin - Almond Pt. SAMPLE REMARKS Superfund analysis SEND RESULTS TO (NAME & SECTION) Resource Recovery

FIELD ID.	"DO NOT PUNCH" - DESCRIPTION OF SAMPLING SITE OR SAMPLE	REF. NO.	STORE NUMBER	START DATE	TIME	DEPTH	LAB NO.	TEMP. DEGREE CENT.	OXYGEN DIS. MG/L	PH STAND. UNITS	COND. 25 C US/CM	BOI-5 TOTAL MG/L	C.O.D. LOW NG/L	T.O.C. AMPUL MG/L	NO3NO2 TOTAL MG/L N
		P		YYMMDD	TTTT	FEET	00008	00010	00300	00400	00095	00310	00335	00680	00630
0w1	per notes	I01		800423	1910		6452			7.4	435		4	0.7	
0w2	" "	I02		800423	1515		6453			7.0	1910		37	6.8	
0w3	" "	I03		800423	1457		6454			7.4	890		12	3.0	
		I04													
		I05													
		I06													
		I07													
		I08													
		I09													
		I10													

REF. NO.	NO3 TOTAL MG/L N	NO2 TOTAL MG/L N	NH3 TOTAL MG/L N	KJEL N TOTAL MG/L N	ORTH. P TOTAL MG/L P	PHOS. TOTAL MG/L P	CA TOTAL MG/L	MG TOTAL MG/L	NA TOTAL MG/L	K TOTAL MG/L	F TOTAL MG/L	CL TOTAL MG/L	HCO3 mg/l	CO3 mg/l	SO4 TOTAL MG/L	ALK. TOTAL MG/L	CO4	Hardness
	00620	00615	00610	00625	70507	00665	00916	00927	00929	00937	00951	00940	00440	00415	00945	00410		
01	0.47	0.006	0.020				67	15	6.6			6.0	240	0	28		7	230
02	2.8	0.024	18.				180	47	99.			350	530	0	43		7	635
03	0.55	0.012	0.127				94	31	42			159	255	0	11		0	350
04																		
05																		
06																		
07																		
08																		
09																		
10																		

February 3, 1983

Mr. William F. Scott
Scott's Disposal, Inc.
1215 Lewis Street
Jackson, Michigan 49203

Re: Scott's Disposal, Inc.
Calhoun County
No. 13-000022

Dear Mr. Scott:

On January 21, 1983, Mr. Danneffel and Mr. Hall from this office attempted to inspect your licensed refuse transfer facility in Sheridan Township, Calhoun County. Upon arrival at 1:15 p.m. they were denied entry by your attendant and were not allowed to enter until 6:30 p.m. when Conservation Officers arrived. This is in violation of Act 641, Section 15, Part (3):

"The issuance of a license shall empower the Director or a health officer or an authorized representative of the director or health officer to enter at any reasonable time, pursuant to law, in or upon private or public property licensed under this act for the purpose of inspecting or investigating conditions relating to the storage, processing or disposal of any material."

Our staff observed vehicles entering your facility through the side gate to unload refuse. This is in violation of Rule 507, Part (1):

"Access to a solid waste transfer facility shall be limited to a time when a responsible individual is on duty."

Our staff observed an estimated 500 cubic yards of refuse stored on the ground behind the compactor area. This is in violation of Rule 507:

"Part 4: Solid waste shall not be stored over night at the facility except in closed containers or in approved transporting units.
Part 6: Solid waste shall be confined to the unloading, loading and handling area."

Part 7: The solid waste transfer facility shall be kept clean and free of litter.

Part 11: A sufficient number of containers shall be available to preclude the storage in the building of excessive solid waste awaiting transfer. The overflow of solid waste from containers is not permitted."

Staff observed an estimated 200 cubic yards of refuse lying at the compactor area which could not be processed due to mechanical failure of the compactor and front-end loader. They were informed by you that the compactor has been broken down since approximately January 10, 1983. You have continued to accept refuse in violation of Rule 507, Part (10):

"Equipment adequate in size and quantity and in an operative condition shall be available at all times. If for any reason the facility is inoperable for more than 24 hours, an alternative method approved by the solid waste control agency shall be used to handle solid waste."

Storage of refuse on the land surface encourages vermin problems in violation of Rule 507, Part (13):

"Necessary operations of the transfer facility shall be performed in a manner that prevents the harborage and production of insects and rodents. Effective vector control measures shall be provided by the licensee when necessary."

You verified open burying of brush and stumps by your employees. This is a violation of Rule 507, Part (17):

"Solid waste shall not be burned at the transfer facility."

Staff observed scrap metal lying on the ground. This is a violation of Stipulation 2 of your permit:

"Salvageable material must be stored in roll-off boxes."

You have failed to provide adequate fencing as shown on your approved construction plans. You have failed to provide asphalt paving as stipulated. This is in violation of Stipulation 1 of your permit.

"The operation must comply with the signed consent agreement 81-00051 and the approved engineering plans."

Your copy of the inspection report is attached. You must immediately comply with the following provisions:

1. Cease accepting refuse when facilities are broken down.

February 3, 1983

Page 3

2. Restrict access to the site to when a responsible individual is on duty.
3. Cease any open burning.
4. Allow access to your site by representatives of this office at any reasonable hour.

You must by February 18, 1983:

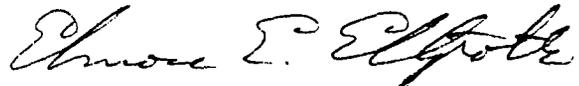
1. Remove refuse deposited east of the compactor.
2. Remove refuse pile south of the compactor.
3. Remove refuse outside of main gate.

You must by March 4, 1983:

1. Remove or place salvageable material in roll-off boxes.
2. Provide a written schedule to this office for paving and fencing of the site.

If you fail to remedy these violations of Act 641 and the promulgated rules, we will proceed with revocation of your license. If you have any questions or wish to further discuss this matter, please contact me at (517) 373-6473.

Sincerely,



Elmore E. Eltzroth, Supervisor
Jackson District Office
Groundwater Quality Division

EEE:cip

Attachment

cc: David Dennis
Wm. Bradford
Calhoun Co. Health Dept. ✓

KELLOGG COMMUNITY COLLEGE

CC

1-816-885-3931

450 NORTH AVENUE
BATTLE CREEK, MICHIGAN 49018

Location Sampled: Sheridan-Albion Land Fill

Sample Remarks: supernatant analyzed

For: GORDON D. STEVICK
Lot 1 CRYSTAL LAKE
Cement City, Mich. 49233

Sample Collected by: W. Kelley

Date: 7-24-80

Received at Lab.: 7-24-80

[phone # (517) -688-4409]

Analyzed by: W. Kelley

Sample Description	pH	Cond.	ALKALINITY		C.O.D.	90 ₄ ⁻	Chloride	Pb	Cr
			HCO ₃ ⁻ mg/l	CO ₃ ⁼ mg/l					
well #1									
well #1	7.1		197.	0	1.6	32	6.9		
well #2	6.6		533	0	55.5	44	303.		
well #3	7.		244	0	22.8	6.	192.		
well #1	.16	< 1.0	0.005		88.5	18.7	4.3	2.5	
well #2	7.8	4.2	0.008		237.	48.	108.	.9	
well #3	.29	< 1.0	0.003		108.	36.	60.	.6	

None detected
None detected

CALHOUN COUNTY HEALTH DEPARTMENT
P.A. 641 FIRST QUARTER REPORT 1990

Mileage: 307

Activity Synopsis

During the first quarter of 1990, the Calhoun County Solid Waste Program staff was busy with P.A. 641 responsibilities. Throughout the quarter, a wide variety of responsibilities were rendered through our grant agreement with the Department of Natural Resources. The following is a brief profile of some of the activities which were completed during this time period.

1) Sheridan/Albion Landfill

Calhoun County Solid Waste Program staff continue to be involved in the monitoring of wells located on the Albion/Sheridan landfill property. The DNR and Calhoun County staff are keeping a watchful eye on this site.

2) C & C Landfill

One inspection was conducted at this facility during the first quarter of 1990. Adequate cover was being maintained but due to heavy rains and snow, there was a mud problem.

There was also an area where the landfill sloped down toward a wetland area and there is a continuing problem with sedimentation in the wetland area. The problem is being handled using bales of hay to catch sediment in the run-off.

The run-off trench has been re-routed to flow between the Type II and not yet constructed Type III areas. There seem to be no problems involved with the re-routing of the trench.

3) Solid Waste Planning Committee

Calhoun County Solid Waste Program staff continue to be involved in solid waste management meetings in an advisory capacity. Our representative provides consultation on the provisions of P.A. 641 as it relates to the operation, siting and permitting of solid waste facilities. Our staff regularly attends three meetings each quarter.

4) Illegal Dumping Complaints

Calhoun County Solid Waste Program staff regularly respond to reports of illegal dumping. The complaints are usually made by concerned citizens, or through municipal offices.

We have responded to several complaints of dumping of concrete and construction materials in the Battle Creek City area. There have also been numerous small dump sites on farm land throughout the county.

No further interest in re-opening the Sheridan Township Transfer Station has been expressed.

5) WM Transfer Facility

This facility has finally been completed and representatives from the Calhoun County Solid Waste Program staff inspected the facility. Overall the operation seems to be running smoothly, well within the guidelines outlined in P.A. 641.

6) Locke's Recycling Center

One inspection of this facility was conducted over the period of the first quarter. Although the operator is not required to maintain a permit, compliance with P.A. 641 is mandatory for continued operation.

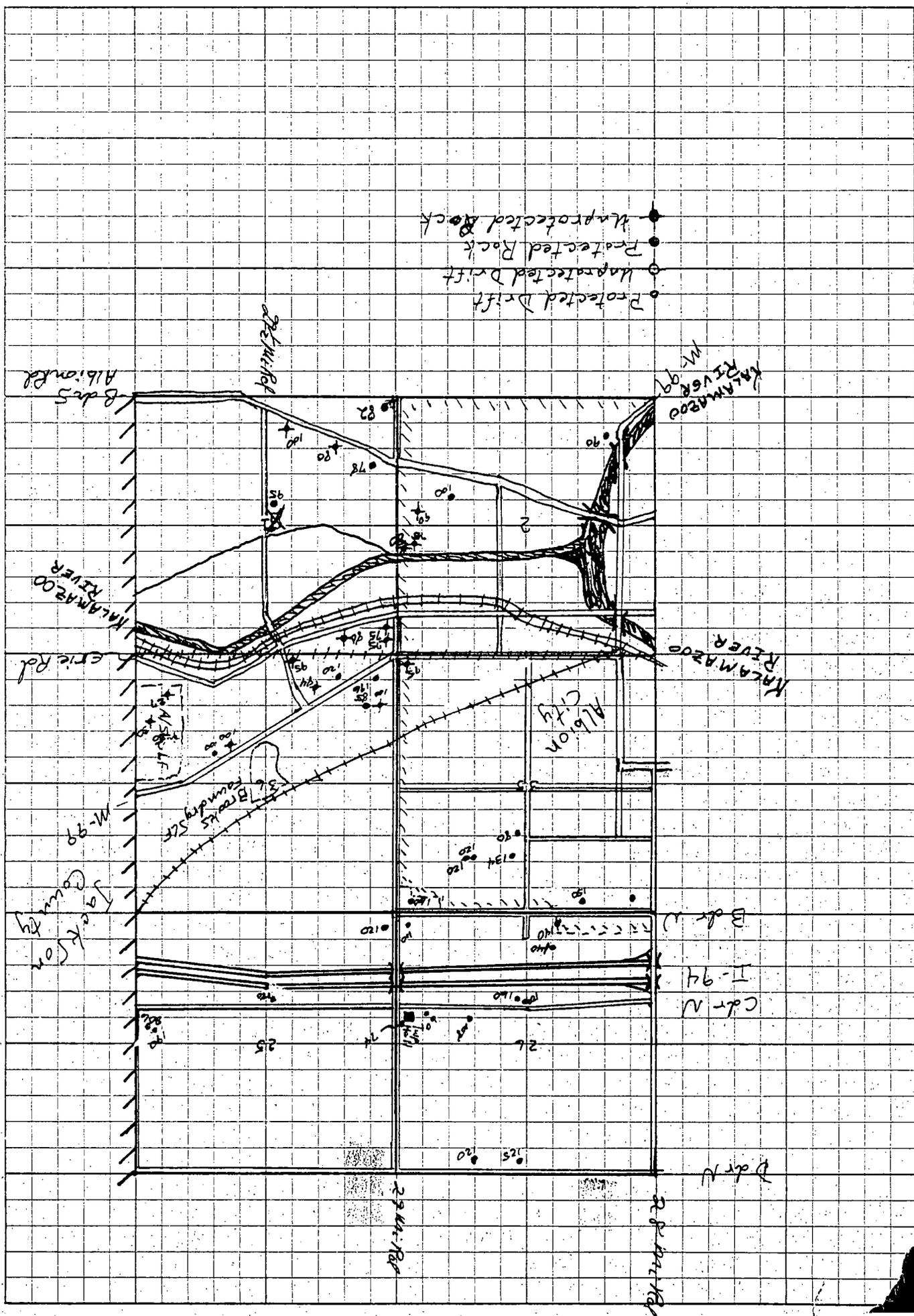
Upon inspection all areas were in compliance including the recycling portion. Due to the condition of the roads, this facility was only inspected once during the quarter.

7) Telephone Consultations

Calhoun County Solid Waste Program staff receive and answer hundreds of calls each quarter. Answering these many calls require hours of staff time that cannot adequately be represented in a report.

8) Proposed Type III Landfill

A progress inspection was conducted on the proposed Type III landfill located in the mid-western portion of the county near the Kalamazoo County line. The landfill will contain only construction waste but will be monitored at a minimum of once per quarter. Inspection of the site for the landfill was conducted in the late part of the fourth quarter and found to be satisfactory. There hasn't been much progress; however, development of this area for the intended purpose of the landfill will probably pick up in the second quarter of 1990, as weather permits.



Mr. A. W. ...
22

362-5792
9 10

362-5792
2 10

Richardson, J. ...

CR

KALAMAZOO RIVER

DRISCOLL, HAROLD A & W
362-039-00

Brooks Building
362-033-00

Brooks Building
362-012-00

Brooks Foundry
361-051-00

STEICK, Gordon
362-045-00

362-036-00

Albion True Value Hardware
362-053-10

362-011-00

Brooks Building
361-031-00

364-030-00

RABAKOV, DONNA
LOT 47

364-033-00

LOT 48

McKINNEY, SHEAH

362-003-N 00
Cooper Industries

KEENHAN'S

Hess Seed

Shilling, Donald & Karen
364-060-00

364-051-00

364-051-00

ARCO Industries Grass
364-024-00

LOT 46

SCHULTZ, GEORGE & WIFE
361-045-00

OK

Botling & Webbing

361-045-00

361-045-00

361-045-00

361-045-00

361-045-00

361-045-00

361-045-00

361-045-00

361-045-00

361-045-00

Hyder's
361-050-00

Greenhouse
361-050-00

361-050-00

361-050-00

361-050-00

361-050-00

361-050-00

361-050-00

361-050-00

Martin, Gordon
361-021-00

361-021-00

361-021-00

361-021-00

361-021-00

361-021-00

361-021-00

361-021-00

361-021-00

361-018-00

361-018-00

361-018-00

361-018-00

361-018-00

361-018-00

361-018-00

361-018-00

361-018-00

RUFF, CLARENCE
363-018-00

363-018-00

363-018-00

363-018-00

363-018-00

363-018-00

363-018-00

363-018-00

363-018-00

363-018-00

363-018-00

363-018-00

363-018-00

363-018-00

363-018-00

363-018-00

363-018-00

363-018-00

363-018-00

363-018-00

363-018-00

363-018-00

363-018-00

363-018-00

363-018-00

363-018-00

363-018-00

363-018-00

363-018-00

363-018-00

363-018-00

363-018-00

363-018-00

363-018-00

363-018-00

363-018-00

363-018-00

363-018-00

363-018-00

363-018-00

363-018-00

363-018-00

363-018-00

363-018-00

363-018-00

CLARK ST

R.R. ROW

R.R. ROW

ERIE RD.

Richardson, Sekoni, L.

362-039-00

362-039-00

362-039-00

362-039-00

362-039-00

362-039-00